

**REMARKS/ARGUMENTS**

The Applicants originally submitted Claims 1-21 in the application. The Applicants have not amended, canceled or added any claims. Accordingly, Claims 1-21 are currently pending in the application.

**I. Rejection of Claims 1, 8 and 15 under 35 U.S.C. §112**

The Examiner has rejected Claims 1, 8 and 15 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the Examiner asserts “each other” of “each of link” does not appear to refer to a specific path or how it is determined. (*See* Examiner’s Action, page 3.) Applicants respectfully disagree.

Independent Claims 1, 8 and 15 refer to a directed auxiliary graph constructed from an undirected graph representing a network by reversing *each link* in a primary QoS path of the undirected graph and replacing *each other link* in the undirected graph by two directed links. As such, “each other” in these independent Claims refers to those links in the undirected graph that are not a link in a primary QoS path of the undirected graph.

Accordingly, the Applicants respectfully request the Examiner to withdraw the §112 rejection with respect to Claims 1, 8 and 15 and allow issuance thereof.

## II. Rejection of Claims 1-21 under 35 U.S.C. §102

The Examiner has rejected Claims 1-21 under 35 U.S.C. §102(b) as being anticipated by “Disjoint Path in Networks” by Suurballe. The Applicants respectfully disagree.

Suurballe relates to finding k-minimal cost disjoint paths between source and destination nodes wherein each link is associated with a single weight (*i.e.*, cost). (*See* the Abstract and Introduction on pages 125-126.) However, Suurballe does not disclose finding quality of service (QoS) paths wherein every link in a QoS path is associated with two weights (*e.g.*, cost and delay). As such, Suurballe fails to disclose constructing a directed auxiliary graph from an undirected graph representing a network by reversing each link in a *primary QoS path* of the undirected graph as recited in independent Claims 1, 8 and 15.

Additionally, Suurballe fails to disclose restoration paths. Instead, Suurballe teaches seeking disjoint paths between a sink and a source. (*See* the Abstract and Introduction on pages 125-126.) In contrast, the presently claimed invention seeks a primary QoS path and then a set of bridges with each bridge connecting two intermediate nodes along a primary path that protects the segment between the bridge end-points. Thus, rather than protecting the entire primary path with a disjoint path as in Suurballe (*see* Figure 4), the present invention provides a set of bridges such that each bridge protects a segment of the primary path. As such, Suurballe fails to disclose identifying a set of bridges in a network such that at least one link of the primary path is protected by a bridge as recited in independent Claims 1, 8 and 15.

Thus, for at least the reasons above, Suurballe does not disclose each and every element of independent Claims 1, 8 and 15 and Claims dependent thereon. Suurballe, therefore, does not

anticipate Claims 1-21. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §102 rejection with respect to Claims 1-21 and allow issuance thereof.

### **III. Conclusion**

In view of the foregoing remarks, the Applicants see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-21.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

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